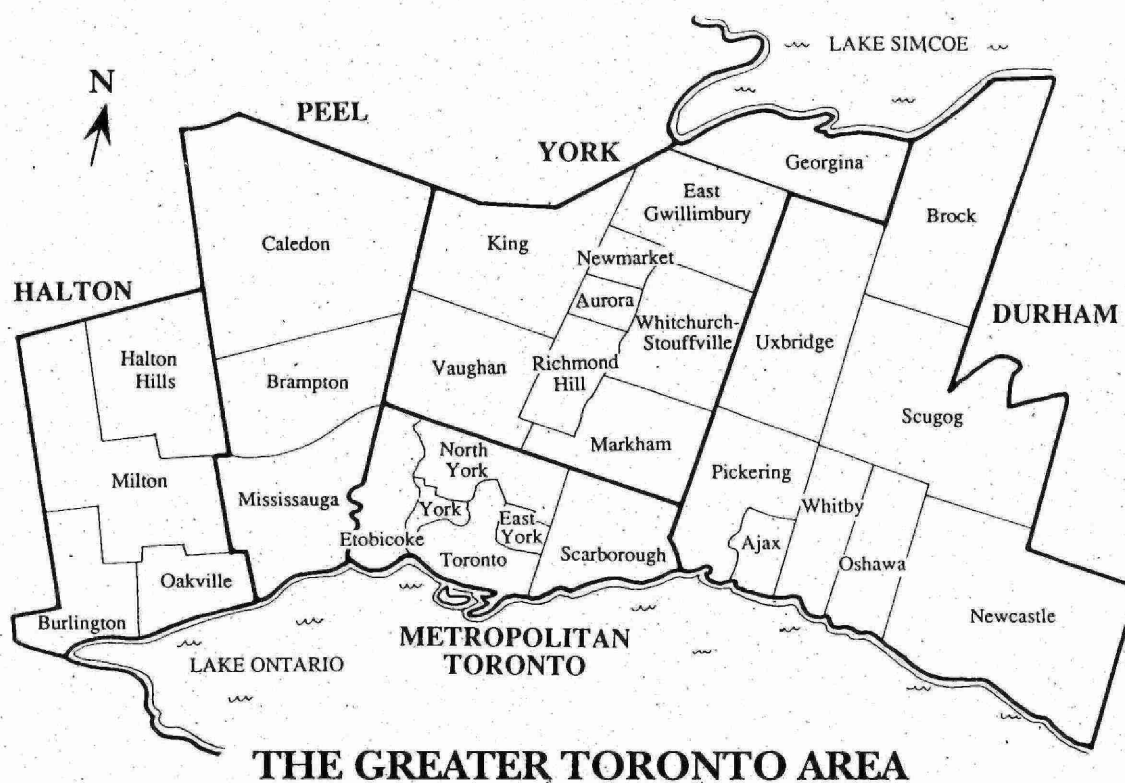




# MEETING THE CHALLENGE:

## Reduction, Reuse & Recycling Activities in the Greater Toronto Area



Ontario

Environment  
Environnement

### Copyright Provisions and Restrictions on Copying:

This Ontario Ministry of the Environment work is protected by Crown copyright (unless otherwise indicated), which is held by the Queen's Printer for Ontario. It may be reproduced for non-commercial purposes if credit is given and Crown copyright is acknowledged.

It may not be reproduced, in all or in part, for any commercial purpose except under a licence from the Queen's Printer for Ontario.

For information on reproducing Government of Ontario works, please contact ServiceOntario Publications at [copyright@ontario.ca](mailto:copyright@ontario.ca)



HON. RUTH GRIER  
*Minister of the Environment*

## Message from the Minister of the Environment

ONTARIO has become a leader in progressive waste management. The Province was one of the first jurisdictions on the continent to implement a curb-side recycling program. Our households are leading the industrial world in the use of home composting. We are home to some of the best recycling and reuse technologies, many of which are being exported around the world. We were one of the most wasteful societies on earth, throwing away 1.1 tonnes per person in 1987. In the first six months of 1992, however, our per capita generation was down by 21%. With a little more effort we will exceed our 1992 target of 25% by year end.

The Greater Toronto Area (GTA) is the industrial heartland of the province. As a consequence it faces the most pressing waste management challenge; but because the GTA offers a "critical mass" of diverted materials, capital, and ingenuity, it also has the most promising opportunities. GTA-based businesses have access to one of the largest markets for recyclable materials. A guaranteed supply of recyclable materials and a growing global demand for products made from them presents a unique entrepreneurial opportunity for GTA businesses.

Making the 3Rs work across the GTA requires the cooperation of all sectors. The challenge ahead is to improve what is already in place, and to take full advantage of the opportunities reduction, reuse and recycling present to create a sustainable economy and a conserver society.

THIS booklet provides an overview of reduction, reuse and recycling (the 3Rs) activities in the Greater Toronto Area (GTA).<sup>1</sup> It outlines the waste reduction challenge facing the GTA, summarizes some of the actions and programs already undertaken by governments — provincial and municipal — to reduce waste in the GTA, highlights waste reduction success stories from the private sector, and identifies

future opportunities for cooperative action by governments, industry, institutions, labour, nongovernmental organizations and the public.

*Meeting the Challenge: 3Rs in the GTA* is one step in an ongoing dialogue on 3Rs programs and future facility requirements for the GTA. The comment sheet at the back of this booklet is intended for you to provide your comments on waste reduction efforts serving the GTA.

<sup>1</sup> A more detailed description is contained in *The 1992 Status Report on 3Rs in the Greater Toronto Area*, available from the Ministry of the Environment.



---

# MEETING THE CHALLENGE:

## Reduction, Reuse & Recycling in the Greater Toronto Area

**F**OR many in the GTA, the summer of 1992 was fraught with concern over diminishing landfill capacity. Are new sites even necessary? Why isn't more being done about Reduction? Re-use? Recycling? In fact much is being done to reduce the overall amount of waste requiring disposal in the GTA. The provincial government, together with regional and local municipalities, is establishing facilities, providing grants to municipalities, industry, and consumer groups, encouraging consumer action and sharing information with all sectors. We are on our way to becoming a conserver society – one that makes the conservation of resources central to all human activities. But there is still much to do to ensure that as little as possible is wasted as a result of the production and consumption of goods and services.

**T**HE Greater Toronto Area (GTA) is a highly integrated metropolis which includes five upper-tier municipalities: the Municipality of Metropolitan Toronto and the Regional Municipalities of Peel, York, Durham and Halton. Within these five upper-tier municipalities there are 30 lower-tier or "area" municipalities.

### Did you know the GTA accounts for:

- 44% of Ontario's population
- 40% of Ontario's households
- 40% of Ontario's economic output
- 45% of Ontario's employment base
- 40% of Ontario's garbage

The GTA covers 6,250 square kilometres. In 1990, the GTA had a population of about four million people and an estimated total of 1.4 million households. About 2.4 million people work in the GTA. Because of the numbers of people that live and work within the GTA, and the volume of activity

that takes place there, the success of waste reduction efforts in Ontario hinges upon what happens in the GTA.

In 1992, industries and residents in the GTA produced about three million tonnes of garbage. This is down considerably from 1988, when the GTA required disposal for over four million tonnes. Despite this drop, the GTA still has one of the highest levels of waste generation in the world on a per capita basis. Our waste creates an enormous demand for disposal capacity within the GTA. Even with effective waste reduction programs, the need to dispose of residual waste in the GTA may increase as the population is expected to grow to six million by the year 2021.

Even more important than the demand our high level of waste generation places on disposal capacity is the loss of valuable resources. As virgin materials become scarcer, global pressures are mounting to conserve and preserve where we once consumed and discarded. The challenge facing the GTA is not unique. Economies worldwide are being confronted by the effects of wasteful consumption and are having to make significant lifestyle changes, as people seek to protect and conserve natural resources and ecosystems.

---



# MEETING THE CHALLENGE:

## The Province, private sector and municipalities – partners in waste reduction

**T**HE Province and the GTA municipalities are cooperating on a wide variety of programs to reduce waste. Much also is being accomplished as a result of private sector and community initiative and innovation. Some of the successes of the GTA-based companies and organizations are profiled throughout these pages (*see boxed items*).

In 1991, GTA businesses and institutions received \$2.9 million in provincial grants (well over half the provincial total of \$4.5 million) to purchase new recycling equipment and construct new facilities, to improve existing facilities, or to undertake 3Rs pilot programs. In addition, more than \$5 million in grants were awarded to ten GTA-based companies in the past two years to develop scrap tire recycling technologies.

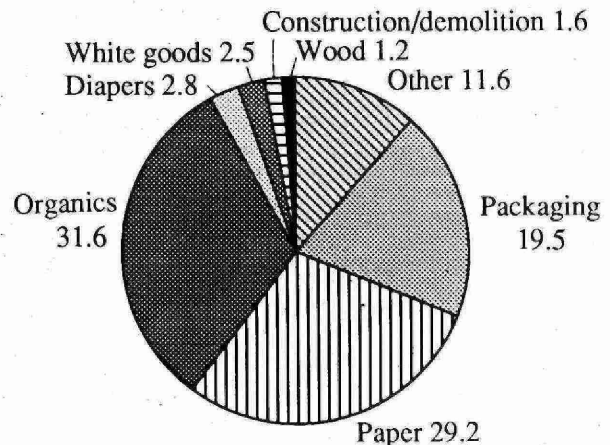
At the same time, the Province provided more than \$18 million to GTA municipalities and schools for Blue Box and composting programs. These funds covered two-thirds of the capital cost of home composters, and one-third the cost of items such as recycling vehicles, processing equipment and Blue Boxes. Between one-third and one-half of the operating costs of Blue Box programs continue to be covered by the Province. In 1992, provincial funding to GTA municipalities for all these programs is expected to reach \$24 million.

### CP Hotels

The CP Hotel and Resort chain has taken a strong leadership role in promoting the 3Rs at its facilities. In 1990 the chain developed a corporate "green plan." The company surveyed employees for ideas, set specific goals in areas such as waste reduction and energy use, and then provided staff training in the fields of everything from purchasing to room service.

The results soon became apparent. For example, L'Hotel in downtown Toronto saved \$3,500 in one year by eliminating polystyrene cups and individual creamers from its staff restaurant.

**1989 Residential Waste Composition in Ontario (% by weight)**



Other: non-container glass/steel/aluminum, plastic, tires, household hazardous waste, misc.

Packaging: cardboard, boxboard boxes, containers (glass, steel, aluminum, plastic)

Paper: writing paper, magazines, waxed, phone books, wallpaper, tissue, newspaper

Organics: food waste, leaves, tree cuttings, grass, weeds

Source: Ministry of the Environment, *The Physical and Economic Dimensions of Waste Management in Ontario*, Nov. 1991, Table 3.2.

Virtually every house in the GTA is served by a municipal recycling program using Blue Boxes, blue domes or public depots. More than half the apartments in Metro Toronto and Peel are serviced, as are nearly all of the apartments in Halton and York. Durham has a number of public depots for use by apartment dwellers.

All GTA municipalities collect newspaper, cans, glass and PET (polyethylene terephthalate) plastic. Some collect – or are planning to soon accept – additional materials including corrugated cardboard, telephone books, magazines, fine paper, used clothing, and plastic film, bottles and tubs. Most municipalities carry out some form of peri-

odic or seasonal collection of "white goods" (refrigerators, washing machines, etc.) and Christmas trees. All operate leaf and yard waste collection programs. The table on pages 4 and 5 summarizes the range of municipal programs.

### Measures to encourage waste diversion

To help support recycling programs, GTA municipalities that operate landfill sites have banned disposal of tires, corrugated cardboard, drywall and wood. Peel recently banned all paper fibre, container glass, metal and construction/demolition rubble. Metro Toronto added clean fill, concrete and rubble, scrap metal and office paper to its list of banned materials in July 1990. Halton bans all Blue Box material.

To make recycling more economically attractive, Peel, Halton and Metro Toronto increased their tipping fees at landfills in 1991 to \$150 per tonne, and Metro Toronto increased fees at transfer stations to \$175 per tonne.

### Reducing waste in the workplace

In Peel, a well-developed network of private material recovery facilities supports the material bans program and encourages material recovery from workplace waste. In Metro, in addition to private

facilities, depots at selected public facilities receive source-separated recyclable materials from small workplace generators with insufficient quantities to attract private recycling companies. Metro also has banned from landfill usable surplus and off-specification goods, which the municipality encourages companies to donate to charitable organizations and food bank facilities.

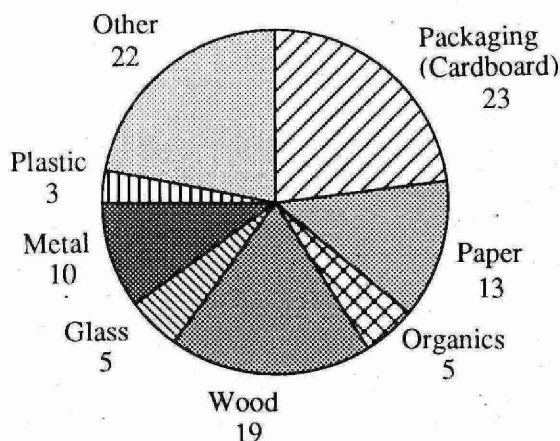
In response to rising tipping fees, growing environmental awareness and increasing public pressure, many private businesses ranging from ten-person offices to multi-million dollar factories have initiated waste reduction measures. These efforts not only have had the positive effect of conserving existing landfill space, but also have improved business bottom lines.

### General Motors of Canada, Oshawa Autoplex

When General Motors of Canada designed and built its state-of-the-art GM Autoplex in Oshawa, management decided to develop and implement a model waste diversion program. An integrated waste management system sorts and separates recyclable materials generated in the 650-acre facility. In the process, GM achieved a 36% reduction in waste going to landfill between 1989 and 1991, and diverted more than 10,000 tonnes of corrugated cardboard in 1991.

New shipping practices also are reducing wastes. For example, GM now ships engines, transmissions, car seats, batteries and other parts in returnable/reusable containers. As well, the company is experimenting with new forms of reusable cardboard containers which fold down and save costly space when returned to suppliers for reuse.

**1989 Workplace Waste Composition in Ontario (% by weight)**



Paper: Office paper, other  
 Wood: Pallets, lumber, cuttings  
 Other: Mixed materials, tires, textiles, industry specific materials

Source: Ministry of the Environment, *The Physical and Economic Dimensions of Waste Management in Ontario*, Nov. 1991, Table 3.9

### Composting

By 1993, more than 220,000 backyard composters will have been distributed throughout the GTA. These are subsidized by the Province, which pays two-thirds of the cost, with the municipality and/or resident sharing the balance. The municipalities' leaf and yard waste collection programs also divert significant amounts of organic material from GTA landfills.

*continued on page 6*

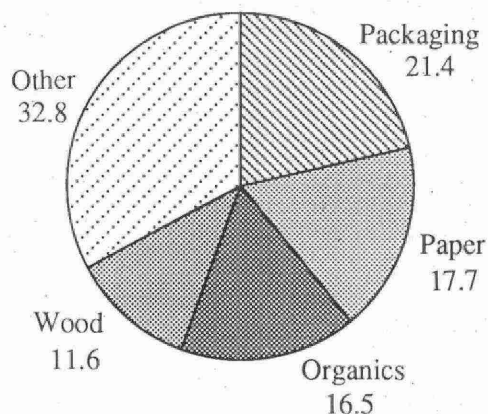
# Summary of 3Rs programs

PROGRAM	DURHAM	HALTON
<b>RESIDENTIAL BLUE BOX</b>	All GTA area and regional municipalities actively participate in Blue Box programs. Collection is most often carried out by local municipalities while processing and marketing are usually the responsibility of the regional government.	
<b>APARTMENT RECYCLING</b>	Multiple-unit dwellings not serviced, except through recycling domes	More than 90% of multiple-unit dwellings serviced
<b>PUBLIC RECYCLING FACILITIES</b>	48 recycling depots (most are recycling domes)	Recycling domes to service rural and urban public areas; 4 recycling depots (one in each area municipality)
<b>LEAF AND YARD WASTE PROGRAMS</b>	Regional leaf composting facility	Oakville operates its own leaf composting site. Region and local municipalities send leaves to privately owned and operated site.
<b>HOME COMPOSTING</b>	More than 20,000 composters distributed to date	More than 21,300 home composters distributed to date
<b>HOUSEHOLD HAZARDOUS WASTE (HHW)</b>	2 permanent HHW depots (paint exchange at Oshawa depot)	2 permanent HHW depots
<b>EDUCATION AND PROMOTION</b>	Brochures; newsletter; compost video; Workplace market directory, posters and award program	Responsibility of the area municipalities. Region does promotion for HHW program.
<b>WORKPLACE PROGRAMS</b>	Workplace waste audits, technical assistance, education	
<b>WASTE EXCHANGE AND SALVAGE</b>	Attended Donation Centre at Brock West landfill	Community-based reuse & recycling facility (WasteWise)
<b>PILOT PROJECTS</b>		Plastic film recycling; wet/dry collection pilot – 3-stream (expanded dry)
<b>LANDFILL BANS</b>	Metro's bans apply.	Old corrugated cardboard (OCC), newspaper, glass, food and beverage containers, aluminum and steel containers, PET, residential cardboard, drywall, tires, scrap metal, white goods

# in the GTA municipalities

METRO TORONTO	PEEL	YORK
Virtually every single family dwelling in the GTA is served by a Blue Box program or rural depots. All GTA municipalities collect newspaper, cans, glass and PET plastic. Some municipalities collect additional materials, including corrugated cardboard (OCC), telephone books, magazines, fine paper, used clothing, HDPE, and mixed plastic.		
65% of multiple-unit dwellings serviced	More than 76% of multiple-unit dwellings serviced	More than 80% of multiple-unit dwellings serviced
80 recycling domes in public areas	5 depots	Depots at Keele Valley and in some local municipalities
Metro operates a leaf & yard waste composting site, as do North York, Scarborough & Etobicoke.	Regional composting at 3 sites	Regional leaf composting facility
By the end of 1992, 120,000 subsidized composters will have been distributed.	More than 42,000 composters distributed since 1988	More than 23,500 composters distributed by area municipalities
10 permanent HHW depots; toxic taxi	3 permanent HHW depots; periodic HHW days	Pilot mobile HHW collection depot
Administered \$2.5 million GTA-wide waste reduction campaign, jointly with Ministry of the Environment. Metro level advertising campaigns for Blue Box program, yard waste, workplace waste, composting. Educational material such as videotapes, office paper, recycling guide, guide to Workplace waste reduction, markets directory, education kit for schools.	Advertising campaigns for composting and 3Rs; classroom presentations by staff; 3Rs information kit; posters to businesses.	Advertising and promotion carried out by the 9 local municipalities to support their 3Rs programs; Region advertises for HHW program.
Workplace waste audits, technical assistance, waste audit manual, seminars, market directory	Workplace waste audits, technical assistance, seminars, market directory	Some local municipalities offer advice to workplace sectors.
Off-specification and surplus goods are banned from landfill. Donation of these materials to charitable organizations is encouraged.	"Free stores" at Albion and Caledon landfill sites for usable furniture, appliances, etc.; waste exchange program for workplace sectors; listing service for clean fill	
Wet collection and processing pilot – 3-stream	Wet collection system pilot – 3-stream	Mobile HHW depot program initiated in 1992.
OCC, tires, drywall, scrap metal, clean fill, concrete and rubble, wood waste, office paper, reusable off-specification and surplus goods	Tires, wood, cardboard, drywall, paper fibre, container glass, metal construction/demolition materials	Metro's bans apply.

## 1989 Total Municipal Solid Waste by Composition in Ontario (% by weight)



Other Residential: White goods, construction, demolition, etc.

Other Workplace: Glass, metal, plastic, tires, etc.

Source: Ministry of the Environment,  
*The Physical and Economic Dimensions  
of Waste Management in Ontario*,  
Nov. 1991.

*continued from page 3*

Among the test projects underway, Mississauga is conducting a 3600-home pilot to test various methods of collection by collecting and centrally composting kitchen and yard wastes. Metro Toronto has initiated a separate kitchen waste collection system serving 15,000 households in Etobicoke, North York and the City of Toronto. Halton conducted a 12-month pilot test to compost kitchen and yard waste. The Halton project involved 600 households and included the collection and processing of kitchen scraps and yard waste as well as dry recyclables. The results are impressive: the diversion rate achieved was more than 50%.

### Household hazardous waste

Household hazardous waste is collected at permanent depots in Halton, Durham, Peel and Metro Toronto. Peel and York also hold special collection days. For example, York Region set up a mobile collection facility in 1992 at eleven different locations, and over a 33 day period accepted materials from more than 10,000 vehicles. In 1991, Peel, which now has three permanent household hazardous waste depots, collected 225,000 litres of liquid hazardous wastes and used oil, 7,057 car batteries and 1,928 propane cylinders. In addition to its ten permanent depots, Metro Toronto operates a "toxic

taxi" service that pick ups household hazardous waste directly from households on request. In 1992, Durham set up a successful paint exchange program at their depot in Oshawa.

### Reuse through exchange

In the spirit of that old adage "one person's trash is another's treasure," reuse takes a variety of forms across the GTA: second-hand shops, antique stores, rummage and garage sales, classified "want" advertisements in community newspapers. As well, Peel operates exchanges for residential waste at its Albion and Caledon landfill sites.

Recession-induced economies are encouraging companies to look for less expensive materials as feed stock for their manufacturing processes. To serve the industrial sector, a number of municipal programs encourage waste exchange. In addition, the Ontario Waste Exchange helps match companies with used materials with buyers who need them.

### Thomas & Betts Ltd.,

#### Mississauga Electrical Manufacturer

Rick Humphrey, Warehouse Manager for Thomas & Betts' Mississauga Distribution Centre, is modest about his company's efforts to promote the 3Rs. But the results are impressive.

Prompted by increasing concern about the environment and a desire to reduce disposal costs, managers and staff at T & B began in 1988 to reuse shrink wrap and cardboard boxes, diverting more than 200 kilograms of packaging waste from disposal each week. They started to separate out wood, non-reusable packaging waste, pop cans and office paper for recycling. Changes – like the elimination of polystyrene cups – also were made in the lunch room.

By October 1992, employees at Thomas and Betts had reduced waste going for disposal by 90% compared to 1988. "In the process," Humphrey says, "the company has saved thousands of dollars in disposal costs and become a leaner, more efficient operation."



## Bell Canada's Zero Waste Program

In 1991, Bell Canada launched a pilot project to promote waste reduction at its Fieldway Road office complex in Etobicoke. The building, which houses nearly 1,000 Bell employees, produced approximately 1800 lbs. of garbage per day in 1989. That was cut to 143 lbs. by October 1991. A further 66 lbs. were diverted from disposal through on-site food waste composting and other initiatives. By October 1992, the diversion rate had reached nearly 98%. In other words, Bell employees at 2 Fieldway Road had reduced the amount of waste for disposal they generated to approximately 36 lbs. per day.

The key to the success of this pilot project was effective and ongoing employee communication and participation. Keeping employees involved with 3Rs activities on each floor and informed about the success of the project ensured a high participation rate.

Not content to sit on its laurels, Bell decided to expand the program in late 1991. Presently more than 10,000 employees at 30 Bell facilities in the GTA (and approximately 5,000 more at 40 other Bell facilities in other parts of Ontario) are participating in the Zero Waste program. Five of the GTA pilot projects have already reached a 90% diversion rate. By October, 1992, 175 people representing 70 companies had toured Bell's Fieldway Road project.

## Waste not, want not

Some community and social service organizations play an important role in diverting various materials to productive uses. Although most have social assistance and fund-raising as their major focus, their waste reduction activities are significant – especially in the reuse of textiles and the diversion of edible food. Organizations such as St. Vincent de Paul, the Salvation Army, Goodwill Industries, Second Harvest and the Canadian Foundation for World Development currently play leading roles in this area.

The Salvation Army and Goodwill Industries provide drop-off containers and trailers for reusable clothing, appliances and furniture. The St. Vincent de Paul Society organizes textile collections through individual parishes of the Catholic Church. All three organizations sell reusable materials through their stores as part of fund-raising activities. Repair of furniture and appliances is done by Goodwill Industries as part of its vocational training programs.

Second Harvest collects edible food from restaurants and hotels and delivers it to institutions and shelters that feed the needy. The program has been very popular with the generators of excess food, since they would much rather see it used than sent to landfills.

The Canadian Foundation for World Development is a volunteer organization that directs used equipment and supplies (including eye-glasses) to the Third World for reuse.

In sum, there are more than eleven social service organizations in the GTA involved in promoting diversion of edible food from disposal, composting or use as animal feed, as well as the reuse and repair of clothing, white goods, books, furniture and machinery.

## Information, resources and public education

Peel, Metro and Durham all maintain regularly updated market directories for recyclable materials, to help industries identify buyers and handlers of their used materials.

Most municipalities provide technical expertise to help businesses and institutions conduct waste audits and develop waste reduction plans. Metro Toronto's Works Department, for example, will help a company review what kinds of waste it generates, how this waste is produced, and how it is managed. The department then works with the firm to evaluate the potential for reducing and recycling the waste, and assists in developing strategies to do so. Peel provided waste assessments for 115 companies

## Save one for the GIPPER

In June 1989, staff in the purchasing department of the City of Toronto, which also serves as the purchasing agent for Metro Toronto, began approaching other municipalities and federal and provincial ministries and agencies about launching a joint effort to promote the 3Rs through development and implementation of new, coordinated government procurement policies.

Later that year, a new committee called Governments Incorporating Procurement Policies to Eliminate Refuse (GIPPER) was established with the following goals:

- to reduce the quantity of waste produced by government bodies and associated agencies, boards, commissions and affiliated contractors;
- to provide markets necessary to promote waste reduction, reuse, recycling and recovery of materials; and

- to facilitate co-operative purchasing among the different levels of government so as to substantially enhance the 3Rs.

By September 1991, all five GTA upper-tier municipalities were members of the GIPPER committee. A number of federal government departments and agencies, including Environment Canada and Supply and Services Canada, also are involved, as is the Toronto Transit Commission, Ontario Hydro, and the Ontario Association of School Business Officials.

In October 1992, the Ministry of the Environment approved a grant to GIPPER to assist with the production of a manual on 3Rs goods and services in Ontario for use by governments and other public agencies.

## Domal creates new market for scrap tires

Domal Envirotech Inc. produces a collar for maintenance hole covers that contains 80% recycled rubber. Each collar consumes the equivalent of 36 tires. Domal received the 1991 Market Development Award from the Recycling Council of Ontario for its product.

The Ministries of Environment and Transportation currently are evaluating the performance of over 100 test installations of the collar on municipal roads. The City of Etobicoke was so satisfied with their tests that they have included Domal collars in their tender specifications.

in 1991, and Durham has helped over 500 industries in a similar manner.

Public education and promotion programs are provided by most GTA municipalities to support 3Rs programs. These include newspaper, radio and transit advertising, brochures, posters and booklets, as well as in-person visits to community centres, shopping malls, schools and demonstrations at community events.

In addition to government programs, a number of environmental organizations and community groups conduct public education programs to promote source reduction and recycling, and the purchase of alternatives to hazardous household products. Faith groups, schools, service organizations, sporting groups – a wide range of community groups – sponsor 3Rs activities across the GTA.



# MEETING THE CHALLENGE:

## Ontario's waste reduction action plan

**P**ROVINCIAL assistance to the GTA in reducing waste is part of a province-wide strategy that includes the setting of waste reduction targets for all of Ontario, and the elaboration and implementation of the policies, programs and regulations required to ensure they are achieved.

### Provincial waste reduction targets

To protect the environment, to conserve resources and to minimize the need for landfills, the Minister of the Environment has made a commitment to reduce waste in Ontario by:

- **at least 25% in the year 1992; and**
- **at least 50% by the year 2000.**

These targets, which are to be measured on a per capita basis against a base year of 1987, are consistent with the national waste reduction goal endorsed by the Canadian Council of Ministers of the Environment. They are also similar to targets being adopted throughout the industrial world, reflecting the global recognition of the urgency of conserving resources.

Based on the most current information from the first half of 1992, it is projected that there will be no more than 7.6 million tonnes of Ontario waste disposed of this year inside or outside our boundaries. This is a 21% drop to 0.8 tonnes per person from the 1987 base year. Available data indicates the GTA is achieving a slightly higher diversion rate.

### Ontario's Waste Reduction Action Plan

To ensure the provincial targets will be met, the Minister of the Environment announced on February 21, 1991 Ontario's Waste Reduction Action Plan, which consists of the following four components:

- introducing effective laws that make waste reduction a higher priority than waste disposal;
- working with business and institutions to reduce waste and to use and make products containing recycling materials;

- making waste reduction programs financially healthy;
- giving people the information they need to reduce waste.

Through these measures, the Waste Reduction Action Plan will build a 3Rs system that is both environmentally and financially sustainable.

### ReUze Building Centre

In the spring of 1992, two former renovators opened an innovative 15,000 square-foot facility at 380 Birchmount Road, Unit 3, in Scarborough for retailing waste materials from construction and renovation projects.

Modelled on similar operations throughout North America that often are run by municipalities, the building centre accepts used materials for drop-off free of charge. Like them, it contains a large retail area for customers to browse through before buying what they need for renovation and construction projects right off the floor. Unlike them, the ReUze operation is intended to make a profit for its operators.

The most popular item purchased by customers is used windows, but toilets, plumbing fixtures, cabinets and doors also sell briskly. "The thing that makes us attractive," says Bob Sawatsky, "is that we are a thrift-oriented business." The average selling price of the used items is about 75 percent less than if purchased new.

## The Waste Reduction Office

The Waste Reduction Office (WRO) was created to implement all aspects of the Action Plan. The Office's key areas of activity include:

- 3Rs legislation and regulations;
- municipal waste management powers and planning;
- financing of waste management systems;
- development of strategies to utilize and market secondary materials;
- tracking waste diversion; and
- communication and education.

Since its inception, the WRO has involved municipalities, business, industry and community groups in discussing how best to address the challenges within each of these areas.

## New laws to support the Action Plan

Specific regulatory measures designed to implement the Waste Reduction Action Plan were outlined in a discussion paper released by the WRO for public consultation in October 1991 entitled *Initiatives Paper #1: Regulatory Measures to Achieve Ontario's Reduction Targets*. The measures include:

- requiring waste audits and waste reduction plans in the workplace;
- source separation systems for both households and the workplace;
- establishing and operating composting systems;
- requiring packaging audits and reduction plans.

Before the regulations outlined in *Initiatives Paper #1* could be approved and implemented by the Ontario Government, enabling legislation had to be passed by the Ontario Legislature. The *Waste Management Act, 1992* (see box opposite this page) – which permits the regulations to be put in place – was introduced in October 1991, and following public hearings, was adopted and proclaimed law on April 27, 1992.

These measures are significant to the GTA in four ways. First, the GTA is home to at least 2,100 of the roughly 5,300 workplaces which now will be required to source-separate recyclables and to prepare waste audits and reduction plans. Second, they will make it easier to obtain approval for recycling and composting facilities. Third, packaging will be audited and reduced. Finally, the regulations will require curb-side recycling collection for all households served by garbage pickup, including apartments and multiple-unit residential buildings.

## Metro Toronto's Community Action Waste Reduction Grants Program

In 1990, Metro Toronto's Works Department began a Community Action Waste Reduction Grants Program to provide support for community and environmental groups in their efforts to develop innovative programs to encourage 3Rs activities. Some of the projects funded include:

- a \$1,500 grant to the East End Children's Centre to write and produce a booklet of ideas and resources on the 3Rs, and to purchase storage bins for a used clothing exchange;
- a \$1,700 grant to the Toronto Chinese Community Services Association to develop a 3Rs information exhibit for use in Chinatown;
- a \$12,000 grant to Citizens for a Safe Environment to fund a mobile "waste reduction van" that toured Riverdale with a display and slide show on composting, a scale to weigh waste, and various educational hand-outs and displays;
- a \$14,000 grant to the Canadian Foundation for World Development, an organization that ships used goods, books, tools and equipment to developing countries, to promote their work through their newsletter;
- a \$5,000 grant to the Volunteer Centre of Metropolitan Toronto to plan and organize a waste reduction training workshop for social service agencies throughout Metropolitan Toronto.

## Reforming municipal waste management powers

Under existing legislation, most municipalities lack explicit powers to undertake 3Rs programs and activities. This reflects the fact that municipalities traditionally were concerned only with the collection and safe disposal of solid waste.

## Highlights Of the 3Rs provisions in *Waste Management Act, 1992*

The *Waste Management Act, 1992* (WMA) is an important indication of the Ontario government's commitment to promoting the 3Rs. While reaffirming its responsibility to ensure safe disposal of solid waste, the legislation also provides for new approaches geared to shifting emphasis to avoiding disposal altogether.

The WMA is divided into four parts. Part IV amends the *Environmental Protection Act*, providing the government with powers to regulate the management of disposable products and other materials before they actually become waste. These are the fundamental provisions which will allow the Province to begin implementing the regulatory measures outlined in *Initiatives Paper #1*.

The new regulation-making powers will allow the Province to require major packaging users to prepare audits and workplans, and to require larger IC&I establishments to undertake waste audits and prepare waste reduction workplans based on the principle of source separation of recyclables and reusables from residual waste for disposal.

It also provides the Ontario government with explicit authority to study and fund 3Rs activities, and additional regulatory powers to control the production of disposable products which are destined for immediate disposal. It significantly expands the power of the provincial government to impose deposits on products and packages. In addition, the WMA allows the government to streamline approvals for 3Rs facilities.

This lack of legal authority sometimes has acted as a barrier to the development of 3Rs programs in Ontario. Faced with growing public interest in the 3Rs programs, a number of municipalities together with Ontario's largest municipal organization, the Association of Municipalities of Ontario (AMO) requested that additional powers be provided to municipalities to enable them to plan, develop and implement new 3Rs facilities, programs and activities.

In response, the Ministry of Municipal Affairs (MMA) – with the assistance of the Ministry of the Environment – prepared a consultation paper titled *Municipal Waste Management Powers in Ontario*. The paper discussed options to empower municipalities for waste reduction through, for example,

- explicit 3Rs planning and disposal responsibilities for upper-tier municipalities;
- power to charge user fees on householders;
- power to impose stiffer penalties on those who contravene municipal by-laws pertaining to waste management.

Providing these powers to municipal governments will ensure that programs appropriate to the needs of a particular community can be introduced, and that the measures required for their success can be enforced locally.

After province-wide consultation in the spring of 1992, MMA began drafting appropriate legislation to provide the necessary powers to Ontario municipalities. It is expected that this will be introduced into the legislature shortly.

### **Durham and Goodwill Partners in Reuse Project**

The Region of Durham, in partnership with Goodwill Industries, is purchasing, refurbishing and staffing two permanent donation trailers (one at the landfill and one at a mall) and one mobile trailer.

The Region will encourage residents to reuse goods by bringing their old clothing and other items to the Goodwill trailer sites. Goodwill will recover reusable items and sell them in their stores throughout Ontario. A grant of \$22,500 to support this project was approved by the Ministry of the Environment in September 1992.

# MEETING THE CHALLENGE:

## Strengthening provincial 3Rs programs and policies

**P**ROVINCIAL policies and programs have a significant effect on the nature and scope of 3Rs and waste management activities undertaken by individuals, municipalities, private sector companies, institutions and community organizations. Updating policies and improving programs in the areas of financing 3Rs activities, developing markets, measuring diversion and designing appropriate communication tools is critical to the success of the Waste Reduction Action Plan.

### Financing

Currently the Province provides grants or subsidies for many solid waste management activities, including 3Rs programs and planning. Since 1989, provincial funding has quadrupled for municipal and workplace waste reduction programs. For 1991-92, the Ministry of the Environment provided a total of \$71.5 million for these programs. Municipalities have paid even more. The Province has stated its intention to introduce a more equitable financing system that does not leave taxpayers holding the financial "bag".

To this end, the WRO is preparing (with other provincial ministries) a position paper that will

outline several possible financing options. The system will be financially self-sustaining, and will not place an unfair burden on municipalities. The paper will address a wide variety of questions: Should consumers have to pay more for products that cannot be recycled or reused after their initial use? Whose responsibility is it to pay for recycling or reuse systems? What kind of financial measures or incentives can be put in place to encourage industry to produce more durable products? Following the release of this paper early in 1993, there will be an extensive period of public discussion.

### Upper Canada Breweries, Toronto

Frank Heaps, President of Upper Canada Brewing in Toronto, estimates his company recycles more than 90% of its solid waste each year – and saves more than \$20,000 a year in the process.

Heaps says that "the 3Rs pay off for Upper Canada, and fits with our natural product." Upper Canada uses no cans – only reusable, returnable bottles and kegs – for distribution of their ales and lagers.

All of the used barley malt left over from the brewing process is picked up regularly by a Georgetown cattle farmer. Employees compost their food waste

and coffee grounds on-site at the company's own composter.

At its special activities and promotional events, Upper Canada collects and recycles all the used plastic serving cups. The company also compacts corrugated cardboard cartons used for bottle returns in a specially-designed unit. The material, which is hauled away for recycling, yields revenues as high as \$60 a tonne.

Heaps says that Upper Canada's 3Rs programs show that "you don't have to be one of the 'big guys' to make a difference."



## WasteWise

WasteWise was founded in early 1991 as a community-based resource centre and diversion facility to provide resource management opportunities distinctly different from traditional waste management methods. It is located in the Town of Halton Hills and staffed by a combination of paid employees and volunteers.

The stated goal of WasteWise is to educate all waste generators about waste reduction, and to divert reusable and recyclable materials from disposal. In the first 15 months of operation, WasteWise assisted companies and businesses in locating markets for diverted materials, fielded dozens of information requests from businesses, environmental groups, organizations and individuals, provided recycling and reuse services to more than 25 businesses, and produced a guide on how to start a community resource centre.

Thanks to their work, WasteWise staff and participating businesses diverted more than 109 tonnes of material (the equivalent of four days of Halton Hill's solid waste) from disposal including: 59 tonnes of paper, 40 tonnes of reusable appliances, tools, furniture and equipment, nine tonnes of used clothing and shoes and one tonne of plastic.

## Market development

Developing markets for used materials depends on several factors. Generators (sellers) of materials have to be put in touch with users (buyers). Buyers are concerned with the quality of what they buy – that it be free from “contamination.” Buyers, particularly those who intend to use materials as feed stock for a manufacturing process, need to be assured of a steady supply. Strategies to develop markets have to address both sides of the transaction.

The Ministry of the Environment is working to ensure that markets are available for recyclable and reusable materials. Several teams, composed of representatives from government, business, labour and special interest groups, are helping the Waste Reduction Office put together strategies to develop

markets (and various end uses) for compost, paper fibre, scrap tires, plastics, construction and demolition materials, and sewage sludge. Many of the team participants come from the GTA, where market development provides an excellent opportunity for the growth of new “green” industries.

To the buyers or users of secondary materials, the GTA offers a large and increasingly predictable source of recyclable materials. The Ministry of the Environment is establishing a Business Development Unit to assist companies that use these materials in their production processes by developing and sharing information on technologies and opportunities, providing business support and facilitating financial assistance. Economic development efforts at the municipal level increasingly are focused on attracting businesses that do not degrade the environment but in fact remediate any damage already done.

Purchasing policies that favour durable materials with recycled content and reduced packaging, and materials that can be reused or recycled, are essential market development tools. The provincial government purchases more than \$3 billion in goods and services each year, excluding major capital projects. Moreover, agencies and institutions partially funded by the provincial government purchase more than \$12 billion in goods and services each year, as do the GTA municipalities, again, excluding major capital projects. In both private and public sector corporate structures, purchasing and waste management have not always been thought of as related practices. If large purchasers from the public and private sectors – such as governments, financial institutions, school boards, hospitals – were to incorporate waste management considerations into their purchasing, this would provide a tremendous incentive to businesses producing recyclable or reusable products. To encourage the adoption of waste-reducing procurement policies, the provincial government is working with the federal government and municipalities to develop standard approaches to procurement, and is informing other sectors of product availability (*see box on the GIPPER, page 8*).

## Toronto Transit Commission

The TTC recycles expired metropasses. The expired plastic pass can be dropped off at most subway stations and are shredded and turned into plastic sewer pipes.

## How the strategy teams are working... a report on one of them

*One of the strategy teams initiated by the Waste Reduction Office is concentrating on diverting materials generated from construction and demolition activities. The following is an excerpt from the September/October 1992 issue of The Toronto Construction News.*

**T**HE Ontario Ministry of the Environment is committed to reducing the amount of material that goes into landfill, and construction waste is one of the target areas... [and] the government wants to work with the construction industry to develop a workable plan.

To do that, a 40-member committee made up of government ministries, and Ontario construction associations (including the Toronto Construction Association) have joined forces to form a strategy team.

Called the Construction and Demolition Waste Reduction Strategy Team, its goal is to provide a forum that will identify the issues, and offer solutions that will help divert construction waste from landfill sites.

Ira Greenspoon, a member of the strategy team, and chairman of the Environment Committee of the Council of Ontario Construction Associations, says rather than split up into traditional sectors like residential, demolition, and new construction, a decision was made to split the team along areas of responsibility loosely based on the "three Rs" — reduce, recycle, and reuse.

The first group will look at ways to minimize or reduce waste in the building

design phase. Most of the group's members are architects, engineers and planners.

The second group, made up of contractors and other on-site personnel, will look at ways to recycle the waste that is produced, while the third group will try to develop markets for products that can be recycled or reused.

Those items make up the bulk of construction waste, and much of it ends up in landfill sites...

Greenspoon, who is vice-president of Greenspoon Bros. Ltd., Brampton, a demolition company, says that for voluntary recycling to be effective, it will have to be competitive with the cost of disposing of waste in landfill sites.

Greenspoon says, "There's a need to have the material stay here because without it we're not going to be able to develop the recycling industries we need to take care of our long-term problems."

Developing those industries will be easier if contractors and tradesmen begin to look for environmentally friendly solutions to the waste problem.

If the construction industry is able to develop and implement its own strategy it may be possible to solve the problem, without resorting to legislation.

### Tracking our progress — Waste diversion information system

Waste reduction targets are of little use if what is being disposed of (and what is not) cannot be measured. To make this possible, the Waste Reduction Office is developing and implementing a system to monitor solid non-hazardous wastes —

both those disposed of in Ontario and those exported for disposal outside the province. With the assistance of municipal and private waste managers, data collection procedures have been developed to track disposal data back to the base year of 1987. In addition to total amounts, the system also is beginning to track how different materials are being managed across the province.

The data will help chart progress towards the diversion targets and also help planners develop waste management systems. Even more important, industries eager to identify secure supplies of materials will find this data invaluable.

### Communications and education

For several years, the Ministry of the Environment has been developing information and education programs to support the 3Rs. These range from educational packages for inclusion in school curricula, to "how to" training materials for industries wanting to conduct waste audits. Backyard composting has received special attention through both paid advertising across the province and a promotional program used by municipalities. The Ministry has produced several posters, booklets and brochures promoting the 3Rs, including the popular consumer guides, *Zero Garbage Shopper*, *Your 7-Day Waste Reduction Diary*, and *100 Ways to Reduce Your Waste Line*.

#### Master Precision Inc., Scarborough

A stamping and tool die shop, Master Precision, reduced its waste by installing a centrifuge on its grinding line. The capital investment costs were recovered in six months.

In addition, the Ministry of the Environment funds municipalities to undertake their own promotional activities through the Municipal Recycling Support Program. It also funds community group-sponsored initiatives through its Environmental Education and Awareness Program.

Each year, the Ministry is a major sponsor of the Recycling Council of Ontario's *Waste Reduction Week*, a province-wide celebration of waste reduction activities. In December 1990, a year-long advertising program was initiated specifically for the GTA. Jointly financed by the provincial government and Metro Toronto, this multi-media advertising campaign used television, radio, newspaper and transit media to promote waste reduction. A new campaign is now underway to thank the public for their help in achieving today's level of reduction, and to encourage everyone to go even farther.

### We want to hear from YOU !!!

*Hear any good waste reduction ideas lately?  
Have some good ideas yourself?*

The Waste Reduction Office of the Ministry of the Environment would like your advice, suggestions or comments on 3Rs.

Please feel free to add additional sheets – preferably of recycled paper – if the space provided below is inadequate.

---

---

---

---

---

---

---

If you would like information about the possibility of having the Waste Reduction Office make a presentation to your group, please complete the following and return this coupon to the address shown below.

Name \_\_\_\_\_

Address \_\_\_\_\_

Postal Code \_\_\_\_\_

Organization \_\_\_\_\_

Position \_\_\_\_\_

Phone (H) \_\_\_\_\_ (O) \_\_\_\_\_

GTA Project, Waste Reduction Office  
Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario, M4V 1 P5

Tel: (416) 325-4440

Fax: (416) 325-4437



## Would you like more information?

To obtain more copies of this or other Ministry of the Environment publications on waste reduction, call or write:

Public Information Centre  
Ministry of the Environment  
135 St. Clair Avenue West  
Toronto, Ontario, M4V 1P5

Tel: (416) 323-4321 or 1-800-565-4923  
Fax: (416) 323-4564

If you call, ask for information on the Ministry's public education on waste reduction. The following check list of some of the available publications is provided for those who prefer to write.

- ☐ Regulatory Measures to Achieve Ontario's Waste Reduction Targets (*Initiatives Paper #1*)
- ☐ Waste Management Planning in Ontario (*Initiatives Paper #2*)
- ☐ Municipal Waste Management Powers in Ontario\*
- ☐ Measuring Progress Towards Ontario's Waste Reduction Targets (*Initiatives Paper #4*)
- ☐ 1992 Status Report on 3Rs in the GTA
- ☐ Your Personal 7-Day Waste Reduction Diary
- ☐ Choose Nature's Way: Compost!
- ☐ Vermicomposting
- ☐ 100 Ways to Watch Your Waste Line

Name \_\_\_\_\_

Address \_\_\_\_\_

Postal Code \_\_\_\_\_

\* Also known as *Initiatives Paper #3*

## First Canadian Place

"First Canadian Place is into farming – and it pays! Every week we ship 275 kg. of swill from food wastes from the restaurants in the twin towers to local pig farmers."

Benjamin Leon,  
Olympia & York Developments

## Conclusion: the way forward

Consumption patterns in the GTA – as in most of the developed world – are the result of an economic and social structure predicated on production and growth. Reducing our production of waste is only part of the puzzle. Some GTA residents may remember a time when milk came in bottles, when appliances were repaired rather than replaced, when families bought a new car intending to make it last ten years. But for the past several decades, people have been preoccupied with convenience and with things that are "new," the "latest," the most recent model.

This is beginning to change. Public enthusiasm for reduction, reuse and recycling initiatives suggests a major shift in attitudes – and behavior – is underway. The GTA is on the cutting edge of this change.

For some people, 3Rs progress in the GTA to date has not been fast enough. Scarce public resources and other financial pressures brought on by the recession may have hampered some programs. A more equitable way of financing waste management and the 3Rs is needed: one that builds the cost of disposal into the price of the product; one that supports the hierarchy of reduction, reuse and recycling, and makes source reduction the most financially attractive choice.

The Ontario government – together with business, labour, the GTA municipalities, community groups, universities and members of the public – is developing alternative options to finance, implement and promote effective and equitable waste reduction. Reduction, reuse and recycling are crucial to protecting the environment and bringing about sustainable economy and a conserver society in the GTA.

**MAIL**  **POSTE**

Canada Post Corporation / Société Canadienne des postes

Postage Paid

Poste Payé

**Bik**

**Nbre**

**G16300**

**MISSISSAUGA ON**

